### **Out of Hours**

## Dr Ben Franklin and an unusual modern-day cure for recurrent pleuritis

## **COMPLICATED PROBLEM, ENLIGHTENED**

What should the astute physician do with a young, self-directed lung patient from the US, as preoccupied with diplomacy and the proper function of government as they are with objective scientific inquiry? In the counsel of that great US scientist-diplomat, Dr Benjamin Franklin, kick them outside ... literally, and all the better if in the nude! But what sort of man was Franklin to listen to on such matters? Franklin's advice, although not substantiated at the time and seemingly unorthodox (to say the very least), came from a learned and productive medical researcher and member of the Royal Medical Society of Paris, honorary member of the Medical Society of London, and member of several US medical societies.1

His rationale for such clinical guidance served as the basis for modern indoor ventilation standards and the concept that respiratory diseases, from which he was a frequent sufferer as a youth,1 were often acquired from other people - not from breathing cold air, as was conventionally thought at the time.2 In a letter of 25 September 1773 to Thomas Percival, of London, Dr Franklin wrote in part:

'From many years' observations on myself and others, I am persuaded we are on a wrong scent in supposing moist or cold air, the cause of that disorder we call a cold. Some unknown quality in the air may perhaps produce colds, as in the influenza, but generally, I apprehend they are the effect of too full living in proportion to our exercise. 2

Franklin is seemingly predicting airborne viruses responsible for influenza and others associated with the common cold, and drawing a connection to becoming clinically ill with poor dietary choices — contributing to obesity, which has deleterious effect on immune function — and lack of physical exercise, depriving oneself of the many universally acknowledged immune benefits of such.2 On 14 June 1773, Franklin had written the following to Dr Benjamin Rush:

'I hope that after, having discovered the benefit of fresh and cool air applied to the sick, people will begin to suspect that possibly it may do no harm to the well. I have long been satisfied from observation, that besides the general colds now termed influenza (which

may possibly spread by contagion, as well as by a particular quality of the air), people often catch cold from one another when shut up together in close rooms, coaches, et cetera, and when sitting near and conversing so as to breathe in each other's transpiration, the disorder being in a certain state."2

Franklin continued, suggesting that what we now call particulate matter (respirable solid or liquid organic or inorganic matter suspended in the air) - known to cause allergic reactions in many people that could easily appear as a cold — and alternative sources of infection (aside from sick people, per se) are also largely to blame for the appearance of colds.2

As appeared to be his typical, forwardthinking attitude, Franklin continued by asserting that most illness, even the common cold, was precipitated, to at least some degree, by over-indulgence and lack of physical exercise.<sup>2</sup> Although not so straightforward as Franklin supposed, the good doctor was correct in his thesis that obesity is poor for health and exercise beneficial.

#### **OUR PATIENT'S EXPERIENCE**

We are keenly indebted for the clinical insight provided through Dr Franklin's advice, detailed in his vast written legacy to Materia Medica. Our patient is a young woman carrying the diagnosis of classic Freeman-Sheldon syndrome,3-4 described elsewhere,5 and whom we have cared for over much of her life. During the preceding 12 years, she had frequently experienced pleuritic pain and râles, and had incomplete responses to first-line antibiotics. Fluoroguinolones were contraindicated due to her history of malignant hyperthermia.6-7 Unexpectedly, patient became symptom-free, reporting that this change had occurred after sleeping outside and demonstrated improved pulse oxygenation from 94 to 97%. She has continued to sleep outside and has remained well for over 2 years, except one

serious, complicated episode of bronchitis that developed while sleeping inside for approximately 1 month.

Although lacking definitive aetiological understanding in this case, we assume there is a higher particulate count inside the home that includes matter to which our patient experiences a hypersensitivity, enabling opportunistic infection from aspiration or aerosol associated with her documented severe dysphagia. Our experience seems to correlate with and substantiate the 19th-century promotion of outdoor air for patients experiencing severe pulmonary disease.

Now that our patient has been banished to sub-zero temperatures in winter, she has acquired a feverish academic productivity that seems to increase exponentially as the months pass. Rather than bring us new pulmonary complaints every few weeks, she is inundating us with mountains of unpublished manuscripts to review. Before this Franklin therapy, she had not published in a single peer-reviewed journal. She now has published no less than ten papers and has others under review!

Perhaps, the fresh air was both the source of Franklin's pulmonary health and mental vigour — a sort of Franklin syndrome — as seen in the productivity of others who made sojourns to Saranac Lake in the US, as well as their colleagues in Britain and on the Continent, who all took to the mountains to breathe in the restorative cool, fresh air. So, on the 310th anniversary of his birth, we heartily salute Dr Franklin for the lasting and sometimes humorous impact he made to our profession, some of which we only now seem to be learning. As the doctor said:

'But we abound in absurdity and inconsistency.'2

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# **Out of Hours Books**

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#### The State of Medicine Margaret McCartney

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#### THE GULF BETWEEN POLICY AND **IMPLEMENTATION**

Nobody who follows the news in Britain, and most especially anyone who has had to use the system recently, can be unaware of the current problems facing the NHS. Those of us who have worked in the NHS over the last 15-20 years are all too familiar with the long history of reorganisations, wasteful initiatives, ill thought out policies, and simple errors. And here they all are, set out in densely referenced detail.

Margaret McCartney's latest book is a truly impressive achievement in the scope and unblinking gaze it fixes on our travails. Even more impressive, it was an easy read, with little that I didn't know already, and almost nothing to disagree with. She has woven all the different elements into a single narrative by stating what, in a less ideological and politically motivated world, would amount to good policy: careful attention to evidence; regard for the opportunity costs of any change; and, running as a constant thread throughout the book, paying particular attention to the harmful effects.

Here the book is an echo in microcosm of a fault that King and Crewe in their book The Blunders of our Governments (2013) identify as a constant in their long list of blunders across many government departments, that the policymakers in Whitehall have no interest in the practical application of their schemes. Policy is for the intellectuals; implementation is for lesser mortals. The policymakers don't ask, and certainly don't listen to, the people working on the ground who would be able to tell them the likely consequences of their latest ideas.

Above all Margaret McCartney is correct that, if we are to reverse the disastrous effects on stress, morale, and simple efficiency, the starting point has to be the values that are embodied in the NHS's structure, and the men and women who make the system work and use it as

The book focuses exclusively on the woes of the NHS. Although that enables McCartney to examine very closely much of what has gone wrong, it prevents her from considering any alternatives. She has written chillingly of the way that private companies are offering services here and now, and warns that this will undermine NHS primary care. However, there are other countries in the world that manage universal health coverage, with a robust system of primary care and good secondary care, and without placing monopoly powers in the hands of an over-centralised and ideologically driven government. One of my fears is that continuing to cling to the system we have here as the only one that can deliver these benefits weakens the arguments for its retention, rather than strengthening them by testing it in good faith against, for instance, a less monopolistic but still publicly funded system.

To criticise McCartney for not doing what she didn't set out to do is perhaps unfair. Towards the end of the book she asks, 'How did doctors and patients get so far apart?' I want to shout back, 'Why are we all as a society so supine that we have allowed successive governments to act so undemocratically and do so much damage to the healthcare system?'

The book argues not for confrontation but, probably more wisely, for a much better partnership between patients, professionals, and government. If it helps to bring that about then we shall all benefit; if not, then perhaps it will at the very least encourage some righteous anger.

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